From: Dan Hinrichs <dandjh@hughes.net>
To: "Lani Andam" <LAndam@waterboards.ca.gov>
Date: 8/23/2010 6:24 AM
Subject: Somerston
Attachments: Comment Letter.pdf

Hi Lani,

Here is my written comment letter on the tentative for Somerston. I will put the hard copy in the mail.

Craig and I would like to meet with you when you are available to discuss.

Thanks,

Dan,

DJH Engineering

Dan Hinrichs, P.E.

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Ms. Lani Andam
WRCE
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

RE: Somerston Winery Tentative Discharge Permit, Comments

Dear Ms. Andam:

Tentative WDR comments are presented here on behalf of the Somerston Wine Company.

1. The special use permit and the CEQA document limit the Somerston Winery production to 150,000 gallons of wine per year (the equivalent of 63,000 cases). The industry standard for winery wastewater production in the Napa – Sonoma Region is 8 gallons of wastewater per gallon of wine produced. This means that the standard production for wastewater from this winery is 1.2 million gallons per year. With some conservation measures already in place and others planned the report of waste discharge assumed an annual wastewater amount of 900,000 gallons per year (6 gallons wastewater per gallon of wine). For purposes of design of this system a maximum annual flow of 1.2 million gallons per year was assumed.
2. In the notice, first paragraph, 5th line – 150,000 gallons and 63,000 cases should read 150,000 or 63,000 cases.
3. In the order, item 3 same comment as above
4. Item 6, eliminate the average daily flow. Winery wastewater is produced at different times considering the activity of the period. An average flow is misleading since it will never occur. The maximum daily flow is 15,000 gallons per day. The maximum daily flow cannot continue if the total at the end of the year exceeds 1.2 million gallons per year.
5. Item 11.e. Eliminate mixed media and replace with spin disk filter. The spin disk filter is similar to filters already used for the drip irrigation system and provides an equal or better effluent than the mixed media filter.
6. Item 12.a. Maximum daily flow is 15,000 gpd. The maximum annual flow is 1.2 million gallons per year.

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Dan Hinrichs is a Registered Civil Engineer, C22267

7. The chem. 440 data is attached.
8. The cover crop in the vineyard consists of native grasses. Nutrient uptake is not needed with the low loadings of nutrients applied to the vineyard.
9. Irrigation amounts vary from year to year depending on conditions at the time. Typical irrigation amounts are shown in the report of waste discharge. There are times when these amounts can vary based on spring and late fall/early winter rain events. Irrigation is very closely controlled during the summer months as part of the strategy for growing premium wine grapes. The irrigation amounts are designed to stress the vines somewhat. After harvest irrigation water (including reclaimed wastewater) is applied to help the vines recover from their stressed condition.
10. Replace item 18 with the following: November and December irrigation with reclaimed wastewater will be limited to 2 gallons per plant per month or 281,820 gallons per irrigation. Irrigation in January and February will not normally be practiced. However, during a drought year an irrigation event may be necessary (1 gallon per plant per month or 140,910 gallons/month).
11. Delete item 19 and replace with the following: Total annual flow is limited to that associated with 150,000 gallon wine production or 1.2 million gallons per year. Monthly flows will vary from the assumed flows in the water balance due to variations in the crush period. Sometimes the crush period can be reduced due to earlier ripening of the late harvest varietals. Monthly limits are unnecessary with the annual limit in place.
12. Item 28. Sprinkler irrigation will be used only for frost protection. Reclaimed wastewater will not be used for frost protection.
13. On an annual average basis treated wastewater will provide approximately 6.9 percent of the total irrigation supply. This will vary with annual changes in the actual irrigation requirements. The discharger anticipates augmenting irrigation water with reclaimed wastewater between the months of March and October with limited irrigation during November and December. During these limited months reclaimed wastewater will be limited to 1 gallon per plant per month.
14. Item 29. Cover crops are not needed for the nutrient balance. The cover crops do provide additional nutrient uptake if needed. The amount of nutrient uptake varies considerably depending on winter rainfall.
15. Item 30. The vines are expected to remove all of the applied potassium. Actual quantities of potassium are difficult to predict. The assumed amount of potassium from the water softener, equipment cleaning and neutralization is 350 mg/L. The projected annual potassium application is 25 lb/ac/year far below the total requirement of 195 lb/ac/yr.
16. Item 42. Land use in the vicinity of the site consists of vineyard within large area of native vegetation.....

17. Item 49. Surface water drainage is to an unnamed creek and Soda Creek that merge near the easterly end of the property and later intersect with Capell Creek……
18. B. Discharge Specifications: Item 1. The annual wastewater discharge shall not exceed 1.2 million gallons per year based on 8 gallons of wastewater per gallon of wine produced. Delete the remainder of the paragraph. Monthly averages are not appropriate for this winery as indicated in comment #4 above.
19. C. Effluent Limitations: Item 1. Treated wastewater applied to land shall not exceed the following effluent limits (after plant uptake), or ……

    In the constituent table, the daily maximum TDS shall not exceed 1000 mg/L; the annual average limit is 510 mg/L
20. Delete item 7. There is limited public access to the ranch or the vineyards within the ranch property. The border areas of the vineyards have deer fences and are remote.

    There are neither pathogenic organisms nor any other constituents in the wastewater that can cause harm to humans. Irrigation with the drip irrigation system does not allow saturated soil conditions or accumulation of surface water.

    Public access is limited due to the location of the vineyards. There are two residences within the vineyard property, one owned by the ranch farm manager. Public access to the vineyard is generally limited invited guests for winery sponsored activities.

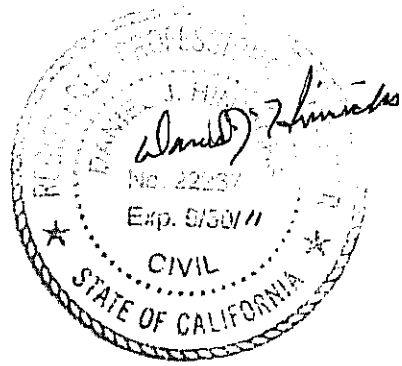
21. Delete item 8. There will be no reclaimed wastewater applied by sprinkler irrigation.
22. Delete item 9. There is limited public access to the ranch or the irrigated acreages and as stated above there is nothing in the reclaimed wastewater that can cause harm to those who may walk through the vineyard.
23. Item 10. There are neither ditches containing reclaimed wastewater nor any runoff that could accumulate in a ditch. There are no low pressure pipelines, unpressurized pipelines or ditches that are accessible to mosquitoes that store wastewater.
24. Item 11. None of these setbacks are applicable for this system at this location. There are limited access areas, the irrigation is applied with drip irrigation systems so there is no runoff or sprays and the sprinkler irrigation system as in comment 20, above, will not use reclaimed wastewater, there are no wells within or near the irrigated areas. Also, there are no pathogens in the wastewater.
25. Section E. Solids/Sludge Disposal Requirements: Item 1. Collected screenings and other solids removed from the winery wastewater shall be spread in the vineyards or disposed of offsite…..

This concludes our comments on behalf of the Somerston Wine Company. Please feel free to call Dan Hinrichs at 530-626-4802 to discuss these comments.

Sincerely,

Dan Hinrichs, P.E.

CC: Craig Becker



August 2009
#05-22

SOMERSTON WINERY
PROCESS WASTEWATER FLOW DIAGRAM

Crush and Fermentation Flow Diagram